



Pictured: Todd Helldoorn, Superintendent El Estero WWTP

## Huber's Screenings Washpresses are Perfect Fit for El Estero's Gravity-Driven Process

*"The Huber Washpress is the only solution that we know of that can produce these results..."* Todd Helldoorn, Superintendent El Estero WWTP

The City of Santa Barbara's El Estero Wastewater Treatment Plant has been through a technology evolution since it was built in the 1970s to reach its present best practices use in its upgraded headworks system.

El Estero removes lots of fecal matter with the new headworks screening system. Previous processes weren't successful at washing the organic and inorganic materials the plant received or in liquefying any of the fecal matter to be drained out and returned to the flow for further treatment.

The way the plant is situated and the make-up of its collection system give El Estero some very specific constraints:

- Limited space
- Neighbors in close proximity
- Much of the wastewater flows by gravity to the plant
- Lots of fecal matter to process due predominate gravity flow collection system.
- Organics to return to the wastewater stream.

As El Estero put the components for the headworks upgrade in place, the plant team was looking for specific capabilities that would help them to remove the organic matter from the screening so downstream biological process were not impacted. The new screens were going to remove a large amount of organic/fecal matter with the screening that needed to be washed and returned to the wastewater stream. They needed to pull out the fecal matter and wash the organics so that pumps and digesters downstream could work more efficiently. They needed to be able to liquefy the fecal matter so that it could be flushed out and then reintroduced into the flow for treatment downstream.

*“Our goal for inorganics is that they are closer to white in color than brown at the end of the process. The Huber Washpress is the only solution that we know of that can produce these results – especially with the way that our plant is situated.”*

#### **Perfect fit for specific needs.**

Huber’s WAP-SL Screenings Washpresses fit El Estero’s needs as if designed for them. The Washpresses could breakdown the fecal matter – liquefying so it could be drained out – and wash the organics so that dryer, cleaner end-product could be processed through the bagger system and prepared for haul-off in a very self-contained manner.

The WAP-SL Screenings Washpresses also work perfectly in gravity flow situations – exactly like El Estero – where a limited number of lift stations leave fecal matter intact and trapped in the screens.

*“Keeping solid fecal matter and inorganic trash from going downstream is what our headworks is*

*all about and we definitely have a handle on that since we’ve upgraded with Huber’s Washpress. You could say that Huber’s Washpress is instrumental in helping us to maintain a low ‘fecal retention factor’.”*

The removal and washing of the fecal matter and organics are the main benefits that El Estero sought for their Washpresses, however the operational team, led by Superintendent Todd Heldoorn, saw several bonus benefits to Huber’s solution:

#### **Main Benefits of Headworks Screening project:**

- Liquefied fecal matter so it can be returned to the wastewater stream.
- Cleaner, compacted debris, trash and inorganics

#### **Bonus Benefits of Headworks Screening project:**

- Less offensive or harmful material for discard/Mostly just inorganic trash
- Reduced stress on pumps and digesters/More efficient downstream processing
- Liquefied fecal matter than can be re-introduced into treatment process/Improvement of the overall quality of treatment the plant provides
- Reduced maintenance and fewer cloggings/Lower costs and more time for results analysis and improvements
- No impact to secondary or digester process.
- Less exposure to hazardous materials/Safer, healthier work environment
- Reduced odors that impact neighbors/Better citizens of the community

### **Complete transformation of headworks.**

El Estero's treatment process has been completely changed because of the upgrades in its headworks.

The dire need for a wash process inspired Huber to add a washbox into El Estero's Washpresses, notching up the quality of its washing capabilities right off the bat. This gives El Estero a "contained" fecal matter liquifacation process that automatically directs its results out of the headworks and back into the flow downstream for further treatment. This was quite an unpleasant, manual endeavor for the team prior to the headworks upgrade. The Huber Washpresses are safer, cleaner, more efficient and effective at treating the fecal matter so that it can be treated and transformed into a harmless end-product.

Huber worked with El Estero's team to understand how the Washpresses needed to be tweaked to reach optimum operation. Because each plant's flow mixture is unique, modifications can be made that can for instance, make impellers deflect materials that may have previously bound them up.

*"It is fascinating to see what can be done to improve an already amazingly efficient and effective piece of equipment. And knowing that Huber is committed to making its solutions perform at their highest possible levels makes it much easier for us to share our ideas with them."*

### **No secrets in keeping equipment humming.**

Huber's service team doesn't keep secrets from the technicians who work with the equipment

on a daily basis. Huber's solutions are critical to plant operations and even the shortest amount of downtime can be devastating to production. Huber wants to make sure that clients rarely have downtime as they await the arrival of the service team, so the teams do a tremendous amount of knowledge transfer. Going beyond weekly PM tasks, Huber makes live tutorials out of parts changes, repairs or specialized tweaking that the technicians may not be comfortable doing on their own so that they eventually can become comfortable maintaining their own equipment.

*"Huber is very cooperative in helping us do what we need to do. Sometimes that means reworking or replacing a part or redesigning a configuration. That means a lot to us. It shows that they care about the success that their clients have with their solutions."*

### **EL ESTERO WASTEWATER TREATMENT PLANT**

Website:

<http://www.santabarbaraca.gov/gov/depts/pw/resources/wastewater/estero.asp>

Each person in the City of Santa Barbara contributes – on average – 120 gallons of water per day (about 5 bath tubs full) to the wastewater system. At El Estero WWTP wastewater is cleaned using physical and biological processes. El Estero is an 8 million gallons per day, Secondary Treatment Facility, equipped with a 4.3 million gallons per day Tertiary Treatment for recycled water.

